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**(54) PLANE OPTICAL WAVEGUIDE WITH
OUTPUT-STABILIZED LASER**

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(57) Abstract:

PURPOSE: To enable a laser power output to be controlled so as to be stabilized, by employing a plurality of plane lenses and a laser output stabilizing circuit.

CONSTITUTION: When a light beam with a divergent angle α is radiated and made incident on plane lenses 31-33, only a portion of the light beam which enters the lens 32 at an incident angle β becomes collimated light 34. Light beam portions with divergent angles γ_1, γ_2 enter the lenses 31, 32 and reach an unnecessary light beam absorbing and scattering end face areas 37, 38, respectively. When the areas 37, 38 are in a normal state, the unnecessary light beams 35, 36 emerge therefrom to the outside. In consequence, it is possible to remove any stray light which may cause malfunction. If the laser power output from the light source 43 is fluctuated by any shock, the fluctuated output can be restored by a loop consisting of a laser power output detector 39, a pre-amplifier 40, a controller 41, a driver 42 and the light source 43.

